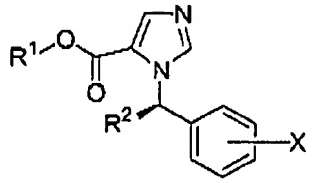
Amendments to the Claims:

The present listing of the claim replaces all past listings of the claim:

1. (Currently amended) A compound of the formula (I)

(I)



wherein

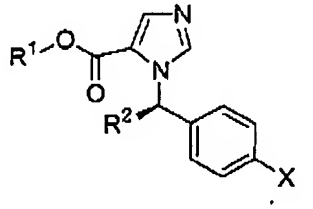
R^1 is linear or branched C_1-C_4 alkyl, and is optionally substituted with a halogen selected from the groups consisting of F, Cl, I or Br;

R^2 denotes an alkyl group containing 1 or 2 carbon atoms; and

X is a ~~non-radioactive or a radioactive~~ halogen.

2. (Currently amended) The compound of claim 1, having the formula (IA)

(IA)



wherein

~~X denotes a non-radioactive or radioactive halogen selected from the group consisting of I, Br, and F.~~

R^1 is linear or branched C_1-C_4 alkyl, optionally substituted with a halogen selected from F, CL, I or Br;

R^2 denotes an alkyl group containing 1 or 2 carbon atoms; and

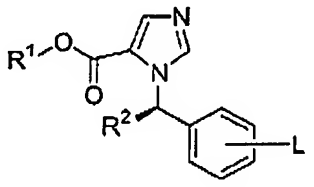
X is a halogen selected from the group consisting of I, BR, Cl and F..

3. (Currently amended) The compound of claim 1 ~~2~~, wherein
X is a radioactive halogen selected from the group consisting of ^{123}I, ^{124}I, ^{125}I ^{131}I, ^{76}Br, ^{82}Br or ^{18}F.

4. (Currently amended) The compound of claim 1, wherein R^1 and R^2 are each methyl, and ~~X is ^{123}I, and wherein the compound is ^{123}I-metomidate (^{123}I-MTO)~~ X is non-radioactive or radioactive iodine, and wherein the compound is I-metomidate (IMTO).

5. (Currently amended) The compound of claim 1, wherein R^1 is ethyl, R^2 is methyl and X is non-radioactive or radioactive iodine ~~^{131}I~~, wherein the compound is ~~^{131}I-etomidate (^{131}I-ETO)~~ I-iodometomidate (IMTO).

6. (Currently amended) The ~~A~~ compound of the formula (II)



(II)

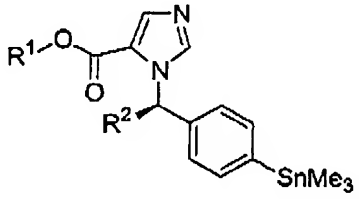
wherein
R^1 is linear or branched C_1-C_4 alkyl, optionally substituted with a halogen selected from

the group consisting of F, Cl, I or Br;

R^2 denotes an alkyl group containing 1 or 2 carbon atoms; and

L represents an alkyl-stannyl group selected from the group consisting of a trimethylstannyl, triethylstannyl, tri-n-propylstannyl and tri-n-butylstannyl.

7. (Currently amended) The compound of claim 6, having the general formula (IIA) ~~wherein L is a trimethylstannyl group~~



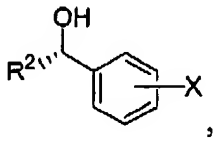
(IIA)

wherein L is a trimethylstannyl group.

8. (Original) The compound of claim 6 wherein R^1 and R^2 are each methyl, and L is a trimethylstannyl group.

9. (Currently amended) A process for preparing the compound of claim 1,the process ~~the method involving~~ comprising the steps of:

(a) providing a (*S*)-sccondary alcohol of formula (III)



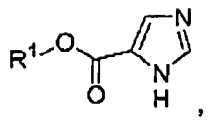
(III)

,

(b) coupling said (S)-secondary alcohol of formula (III) to an alkyl imidazole-5 [4]-

carboxylate of formula (IV)

(IV)



under conditions effective to achieve the compound of claim 1.

10. (Currently amended) The process of claim 9, wherein the (S)-secondary alcohol of formula (III) is prepared by the process ~~method~~ further comprising the steps of:

(a) reducing a substituted phenyl methyl ketone having X as either iodine or bromine, to ~~the corresponding~~ racemic alcohol;

(b) preparing the chloroacetate of said racemic alcohol; and

(c) performing a lipase SAM II-catalysed resolution of (*S*)-alcohol of formula III derived from the (*S*)-enantiomeric ester.

11. (Currently amended) A process for preparing the compound ~~compound[s]~~ of claim 2 ~~and 3~~, the process ~~method~~ comprising the steps of

(a) preparing a compound of formula (II)

(b) reacting said compound of formula (II) under conditions effective for replacing L with non-radioactive or radioactive halogen to produce a compound of the formula (I) wherein R^1 is linear or branched C1-C4 alkyl, and is optionally substituted with a halogen selected from F, CL, I, Br; R^2 denotes an alkyl group containing 1 or 2 carbon atoms; and x is non-radioactive or radioactive halogen..

12. (Currently amended) The ~~method of claim 11, wherein the radioactive halogen is ^{123}I or ^{131}I~~ compound of claim 4 having the structure ^{123}I-IMTO, ^{123}I-ETO, ^{125}I-IMTO, ^{125}I-ETO, ^{131}I-IMTO, ^{131}I-ETO, ^{124}I-IMTO, ^{124}I-ETO, ^{76}Br-MTO, ^{76}Br-ETO, ^{82}Br-ETO, ^{18}F-MTO, ^{18}F-ETO,. I-MTO (non-radioactive iodine), preferably ^{123}I-ETO or most preferably ^{131}I-ETO.

13. (Currently amended) The compound of claim 1 ~~method of claim 11~~, wherein ~~the radioactive halogen is ^{76}Br or ^{82}Br~~ X is a radioactive halogen, especially bromine.

14. (Currently amended) The compound of claim 1 ~~12~~, wherein R1 ~~the halogen~~ is non-radioactive or radioactive 2-fluoroethyl, preferably radioactive ~~iodine~~.

15. (Currently amended A method for the in vivo detection of receptor positive tissue and tumors of adrenal cortex in persons with adrenal pathology, said ~~using the compound of claim 2 to visualize a subject's adrenal glands by radionuclide imaging (SPECT or PET), the~~ method comprising administering the compound ~~steps of:~~

~~(a) providing the compound of formula (IIA), and reacting said compound with a radioactive halogen and a halogenating agent under conditions suitable to affect the substitution of the trimethylstannyl group on the compound of formula (IIA), with a radioactive halogen, and~~

~~(b)administering to a subject, a sufficient quantity (radioactivity) of the compound of claim 2 so as to image the adrenal glands~~ of claim 1 to said person with adrenal disease, and wherein a radiotracer is selected from the group consisting of gamma or positron-emitting halogens..

16. (Currently amended) The method of claim 15, wherein the adrenal-derived tumor is ~~radioactive halogen~~ is not anatomically confined to the adrenal glands ~~selected from the group consisting of, ^{123}I, ^{124}I, ^{131}I, ^{76}Br, ^{82}Br or ^{18}F~~.

17. (Currently amended) The ~~method~~. compound of claim 5 ~~15~~ having the structure ^{123}I-IMTO, ^{123}I-ETO, ^{125}I-IMTO, ^{125}I-ETO, ^{131}I-IMTO, ^{131}I-ETO, ^{124}I-IMTO, ^{124}I-ETO, ^{76}Br-MTO, ^{76}Br-ETO, ^{82}Br-ETO, I-MTO (non-radioactive iodine), ^{123}I-ETO or ^{131}I-ETO ~~wherein the functional imging is effective in detecting adrenal derived tumors~~.

18. (Canceled)